
Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services

STATEMENT OF BASIS

City of Baton Rouge - Parish of East Baton Rouge
EBR Parish Renewable Energy Center
Baton Rouge, East Baton Rouge Parish, Louisiana
Agency Interest Number: 4407
Activity Number: PER20080001
Proposed Permit Number: 0840-00174-V3

I. APPLICANT

Company:

City of Baton Rouge - Parish of East Baton Rouge
P.O. Box 1471
Baton Rouge, Louisiana 70821-1471

Facility:

EBR Parish Renewable Energy Center
Hwy 61 & Thomas Rd
Baton Rouge, East Baton Rouge Parish, Louisiana

II. FACILITY AND CURRENT PERMIT STATUS

The EBR Parish Renewable Energy Center was the primary City-Parish municipal solid waste landfill for 53 years. The landfill began operation in 1940 and was closed in 1993. All waste in the landfill is now permanently covered with a soil cap and a robust vegetative cover. The EBR Parish Renewable Energy Center currently operates under Permit No. 0840-00174-V2, issued November 16, 2004.

III. PROPOSED PROJECT/PERMIT INFORMATION

Application

A permit application and Emission Inventory Questionnaire dated May 12, 2008, requesting a Part 70 operating permit, were submitted. Additional information dated September 29, 2008 was also received.

Project

The EBR Parish Renewable Energy Center (REC) encompasses 118 acres on a 160-acre site in the northern part of East Baton Rouge Parish at the foot of Thomas Road, west of U.S. Highway 61. The landfill received approximately 9.75 million tons of

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solid waste during its 53-year operating lifetime. The landfill rises to an elevation of approximately 100 feet, with a refuse depth of approximately 125 feet.

All waste in the landfill has been permanently covered with a soil cap and a robust vegetative cover. However, microorganisms within the landfill produce, via anaerobic digestion, landfill gas (LFG) consisting mainly of methane and carbon dioxide, with trace (< 1%) amounts of other air pollutants. To capture this gas, the City of Baton Rouge – East Baton Rouge Parish has installed a landfill gas collection and control system. The estimated landfill gas collection efficiency is 75 percent, with the balance of 25 percent escaping from the landfill surface and LFG collection system as fugitive emissions.

After the landfill gas has been captured, the condensate is removed and sent to a leachate collection and treatment system. The dewatered gas is then delivered to an offsite customer, via pipeline, for use as fuel for a boiler, or flared. The flare has an overall destruction efficiency greater than or equal to 98 percent.

No modifications or changes in emissions are proposed.

Permitted Air Emissions

Estimated emissions in tons per year are as follows:

Pollutant	Before	After	Change
PM ₁₀	5.82	5.82	-
SO ₂	4.16	4.16	-
NO _x	8.31	8.31	-
CO	28.85	28.85	-
VOC	9.20	9.20	-

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VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

Pollutant	Before	After	Change
Carbon Disulfide	0.013	0.013	-
Carbon Tetrachloride	< 0.001	< 0.001	-
Carbonyl Sulfide	0.009	0.009	-
Chlorobenzene	0.008	0.008	-
Chloroethane	0.024	0.024	-
Chloroform	0.001	0.001	-
Dichlorobenzene	0.009	0.009	-
Ethylbenzene	0.145	0.145	-
n-Hexane	0.168	0.168	-
Methyl Chloride	0.018	0.018	-
Methyl Ethyl Ketone	0.152	0.152	-
Methyl Isobutyl Ketone	0.056	0.056	-
Toluene	4.515	4.515	-
Trichloroethylene	0.110	0.110	-
Vinyl Chloride	0.136	0.136	-
Vinylidene Chloride	0.006	0.006	-
1,1,1-Trichloroethane	0.019	0.019	-
1,1,2,2-Tetrachloroethane	0.056	0.056	-
1,1,2-Trichloroethane	0.004	0.004	-
1,1-Dichloroethane	0.069	0.069	-
1,2-Dibromoethane	< 0.001	< 0.001	-
1,2-Dichloroethane	0.012	0.012	-
1,2-Dichloropropane	0.006	0.006	-
Acrylonitrile	0.100	0.100	-
Benzene	0.257	0.257	-
Dichloromethane	0.361	0.361	-
Tetrachloroethylene	0.184	0.184	-
Xylene	0.382	0.382	-
Total	6.820	6.820	-

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Non-VOC TAP Emissions (TPY):

Pollutant	Before	After	Change
Ammonia	4.763	4.763	-
Hydrochloric Acid	4.027	4.027	-
Hydrogen Sulfide	0.359	0.359	-
Mercury & Compounds	< 0.001	< 0.001	-
Total	9.149	9.149	-

IV REGULATORY ANALYSIS

The applicability of the appropriate regulations is straightforward and provided in the Specific Requirements section of the proposed permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are also provided in the Specific Requirements section of the proposed permit.